

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A chain tensioner comprising:

a housing formed with a cylinder chamber, a plunger slidably mounted in said cylinder chamber, said cylinder chamber defining a pressure chamber behind said plunger;

a spring mounted in said cylinder chamber and biasing said plunger outwardly of said cylinder chamber;

a retraction restrictor mechanism provided between said housing and said plunger for preventing said plunger from retracting toward a closed end of said cylinder chamber beyond a predetermined distance;

an oil supply passage formed in said housing and communicating with said pressure chamber, said oil supply passage being configured to supply a hydraulic oil such that a pushing force applied to said plunger is dampened by the hydraulic oil;

a ring fitting groove formed in an outer periphery of said plunger near a rear end of said plunger located inside said cylinder chamber,

a radially elastically deformable elastic ring received in said ring fitting groove in a radially compressed ~~state and~~ state; and

an engaging groove formed in an inner periphery of said cylinder chamber near an open end of said cylinder chamber, said elastic ring being engagable in said engaging groove and being configured to radially expand in said engaging groove such that an inner diameter of said elastic ring is smaller than an outer diameter of said plunger and said elastic ring is disposed in both said engaging groove and said ring fitting groove to prevent axial movement of said plunger in a direction away from said closed end of said cylinder ~~chamber~~ chamber.

wherein said retraction restrictor mechanism comprises a resistor ring, and wherein said resistor ring and said elastic ring constitute separate structures such that said elastic ring is operable to prevent axial movement of said plunger independent of said resistor ring.

2. (Previously Presented) The chain tensioner of claim 1, wherein said engaging groove has a first axial end surface and a tapered second axial end surface, said tapered second axial end surface being axially opposed to said first axial end surface and being disposed closer to said closed end of said cylinder chamber than said first axial end surface.

3. (Currently Amended) A chain tensioner comprising:

a housing formed with a cylinder chamber, a plunger slidably mounted in said cylinder chamber, said cylinder chamber defining a pressure chamber behind said plunger;

a spring mounted in said cylinder chamber and biasing said plunger outwardly away from said cylinder chamber;

a retraction restrictor mechanism ~~provided between said housing and said plunger for~~ preventing said plunger from retracting toward a closed end of said cylinder chamber beyond a predetermined distance;

an oil supply passage formed in said housing and communicating with said pressure chamber, said oil supply passage configured to supply a hydraulic oil such that a pushing force applied to said plunger is dampened by the hydraulic oil;

a ring fitting groove formed in an inner periphery of said cylinder chamber near an open end of said cylinder chamber;

a radially elastically deformable elastic ring received in said ring fitting groove in a

radially expanded state; and

an engaging groove is formed in an outer periphery of said plunger near a rear end of said plunger;

said elastic ring being engageable in said engaging groove and being configured to be radially compressed in said engaging groove such that an outer diameter of said elastic ring is larger than an inner diameter of said cylinder chamber and said elastic ring is disposed in both said engaging groove and said ring fitting groove to prevent axial movement of said plunger in a direction away from said closed end of said cylinder ~~chamber- chamber, and~~

wherein a bore is formed in said plunger such that said plunger includes an outer surface and an inner surface, wherein a screw rod is disposed at least partially within said bore, wherein said retraction restrictor mechanism includes an internal thread formed in said bore on said inner surface and an external thread formed on said screw rod, and wherein said retraction restrictor mechanism and said elastic ring constitute separate structures such that said elastic ring is operable to prevent axial movement of said plunger independent of said retraction restrictor mechanism.

4. (Previously Presented) The chain tensioner of claim 3, wherein said engaging groove has a first axial end surface and a tapered second axial end surface, said tapered second axial end surface being axially opposed to said first axial end surface and being disposed closer to a front end of said plunger than said first axial end surface.

5. (Previously Presented) The chain tensioner of claim 1, wherein said elastic ring is a C-shaped member having two separate ends and formed of a steel wire having a circular cross-section.

6. (Previously Presented) The chain tensioner of claim 1, wherein said elastic ring is made of a resin so as to facilitate sliding between the plunger and the cylinder chamber.
7. (Previously Presented) The chain tensioner of claim 2, wherein said elastic ring is a C-shaped member having two separate ends and formed of a steel wire having a circular cross-section.
8. (Previously Presented) The chain tensioner of claim 3, wherein said elastic ring is a C-shaped member having two separate ends and formed of a steel wire having a circular cross-section.
9. (Previously Presented) The chain tensioner of claim 4, wherein said elastic ring is a C-shaped member having two separate ends and formed of a steel wire having a circular cross-section.
10. (Previously Presented) The chain tensioner of claim 2, wherein said elastic ring is made of a resin so as to facilitate sliding between the plunger and the cylinder chamber.
11. (Previously Presented) The chain tensioner of claim 3, wherein said elastic ring is made of a resin so as to facilitate sliding between the plunger and the cylinder chamber.
12. (Previously Presented) The chain tensioner of claim 4, wherein said elastic ring is made of a resin so as to facilitate sliding between the plunger and the cylinder chamber.

13. (New) The chain tensioner of claim 1, wherein said resistor ring is disposed at least partially within a ring mounting groove, said ring mounting groove being formed in said inner periphery of said cylinder chamber; and

wherein said elastic ring is disposed at least partially within said ring fitting groove such that said elastic ring is movable toward said resistor ring.

14. (New) The chain tensioner of claim 1, wherein the radially compressed state of said elastic ring constitutes a state in which said elastic ring is compressed by a force external to said elastic ring.

15. (New) The chain tensioner of claim 3, wherein the radially expanded state of said elastic ring constitutes a state in which said elastic ring is expanded by a force external to said elastic ring.

16. (New) The chain tensioner of claim 1, wherein the radially compressed state of said elastic ring constitutes a state in which said elastic ring is compressed by the inner periphery of said cylinder chamber.

17. (New) A chain tensioner comprising:

a housing formed with a cylinder chamber, a plunger slidably mounted in said cylinder chamber, said cylinder chamber defining a pressure chamber behind said plunger;

a spring mounted in said cylinder chamber and biasing said plunger outwardly of said cylinder chamber;

a retraction restrictor mechanism provided between said housing and said plunger for

preventing said plunger from retracting toward a closed end of said cylinder chamber beyond a predetermined distance;

an oil supply passage formed in said housing and communicating with said pressure chamber, said oil supply passage being configured to supply a hydraulic oil such that a pushing force applied to said plunger is dampened by the hydraulic oil;

a ring fitting groove formed in an outer periphery of said plunger near a rear end of said plunger located inside said cylinder chamber,

a radially elastically deformable elastic ring received in said ring fitting groove in a radially compressed state; and

an engaging groove formed in an inner periphery of said cylinder chamber near an open end of said cylinder chamber, said elastic ring being engageable in said engaging groove and being configured to radially expand in said engaging groove such that an inner diameter of said elastic ring is smaller than an outer diameter of said plunger and said elastic ring is disposed in both said engaging groove and said ring fitting groove to prevent axial movement of said plunger in a direction away from said closed end of said cylinder chamber,

wherein the radially compressed state of said elastic ring constitutes a state in which said elastic ring is compressed by a force external to said elastic ring.